

REMARKS/ARGUMENTS

Claims 1-18 are pending herein. Claims 1, 6, 11 and 13-17 have been amended hereby. Claims 1, 6, 11 and 15 have been amended hereby as supported, for example, by paragraphs [0011] and [0014]-[0019] of the present specification. Claims 13, 14, 16 and 17 have been amended hereby to correct matters of form and for clarification purposes only. Applicants respectfully submit that no new matter has been added.

Independent claims 1, 6, 11 and 15 have been amended hereby to further clarify the patentable features of the present invention over the disclosure of U.S. Patent No. 5,851,298 to Ishii.

Ishii discloses, referring to Figs. 2 and 9A, for example, an electrostatic chuck comprising a substrate 6 having a wafer-installing face 38 and an opposed back face, a bipolar electrostatic chucking electrode 14 buried in the substrate 6 and an insulating layer 42 provided on the back face of the substrate 6. The substrate 6 further comprises a dielectric layer 40 (AlN) including at least the wafer-installing face 38 and surrounding the electrostatic chucking electrode 14. The insulating layer 42 comprises an insulating material (Al_2O_3) having a volume resistivity larger than that of the dielectric layer 40. An electrically conductive member (aluminum cooling member 10) is joined to the back face of the electrostatic chuck. The bipolar electrostatic chucking electrode 14 comprises at least two electrodes having different load potentials, and the insulating layer 42 is sintered and integrated with the dielectric layer 40 and provided on the back face of the dielectric layer 40 to define a rear face of the electrostatic chuck (see Ishii, Fig. 2). In Fig. 9 of Ishii, the Al_2O_3 -Cu layer 72 defines the rear face of the electrostatic chuck.

Applicants respectfully submit that the above-outlined amendments to the claims are believed necessary to distinguish the originally presented claims from Ishii.

The amended claims are believed to distinguish over Ishii for the following reasons. There is no disclosure or suggestion in Ishii of providing a Johnsen-Rahbek effect electrostatic chuck, wherein an area of the dielectric layer that contacts the

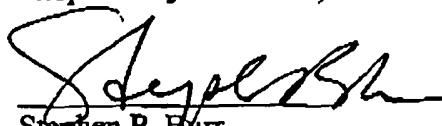
electrostatic chucking electrode has a higher volume resistivity than the remainder of the dielectric layer in which the electrode is buried. For instance, Ishii specifically teaches that the bipolar electrostatic chuck attracts a wafer using Coulomb force, not the Johnsen-Rahbek effect, as recited in the amended claims. Moreover, there is no mention whatsoever in Ishii that portions of the AlN layer 40 (dielectric layer) contacting the electrode 14 have a different volume resistivity than the remaining portions of the AlN layer 40.

Further, Applicants respectfully submit that there is no disclosure or suggestion in Ishii that the insulating layer reduces and inhibits the flow of leakage current from the electrostatic chucking electrode as claimed. That is, Ishii's susceptors function based on a different attraction mechanism (i.e., Coulomb force). There is no recognition in Ishii of any problems associated with leakage current originating from the electrode, much less any suggestion for preventing the occurrence of an otherwise unrecognized phenomena. Accordingly, Applicants respectfully submit that the rewritten claims define patentable subject matter over Ishii.

If the Examiner believes that contact with Applicants' attorney would be advantageous toward the disposition of this case, the Examiner is herein requested to call Applicants' attorney at the phone number noted below.

The Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-1446.

Respectfully submitted,


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